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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/644,327	08/23/2000	Kenji Uchiyama	9319S-000155	1081

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EXAMINER

DUDEK, JAMES A

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,327

Applicant(s)

UCHIYAMA, KENJI

Examiner

James A. Dudek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Kim et al patent ('856).

Per claim 2, '856 teaches a pair of substrates (130,110), each having an opposing face opposing each other with liquid crystal interposed therebetween, the opposing faces being provided with electrodes (134,112);

a protruding portion (not explicitly taught but notoriously well known as described below);

aluminum electrodes formed on the protruding portion and electrically connected with said electrodes (72);

an overcoat layer of an inorganic substance covering the aluminum electrodes (112,124).

an insulating covering the electrodes formed on one of said pair of substrate, wherein the overcoat layer further comprises the insulating layer (polyimide layer 128a is an insulating layer which clearly covers the layer 124).

Lacking is an explicit teaching that the pad region is protruding from the opposing substrate. However, if the '856 reference doesn't having a protruding portion it was well known for simplifying the attaching of the control circuits to the cell. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine a well known protruding portion of the substrates in the pad region of '856 in order to simplify the process of attaching the control circuitry.

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Claims 1 and 4-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the 6323930 in view of Kim et al patent ('856).

Per claims 1, 13, 19-22, 930 a liquid crystal device comprising: a first substrate having a first face, said first substrate being provided with a first electrode [1,11]; a second substrate having a second face opposing said first face of said first substrate, said second face being provided with a second electrode [2,12]; a liquid crystal interposed between said first and second faces [10]; a protruding portion of said first substrate protruding outwardly relative to said second substrate [IC chip portion beyond substrate 2], said first electrode extending from an area where said first and second substrates oppose each other to said protruding portion [see 11 of figure 9]; a driver IC mounted on said protruding portion [LSI], an aluminum electrode [the electrode 11 is ITO, however, it is obvious to use Al, see below] formed on said first substrate, said first electrode electrically connected to said driver IC [see figure 5 and 9]; said aluminum electrode electrically connecting said driver IC and said second electrode [see figures 5-7]; and

, an area where said aluminum electrode is connected to said driver IC [electrode 11 is connected to the LSI], and an area where said aluminum electrode is connected to said second electrode [the electrode 11 is connected to the IC similar to applicants embodiment, that is electrode 11 is the same as the aluminum electrode and it would be obvious to form it as aluminum].

Regarding the aluminum electrode, it was well known to for pixel electrodes such as 930 as aluminum in order to create a reflecting electrode and thus decrease power consumption. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to use aluminum for the material of 930's electrode 11.

Regarding the overcoat, 856 teaches an overcoat layer of an inorganic substance [protective coat 124] covering said first electrode [gate line 12] and said aluminum electrode [also gate line 12, similar to applicant's embodiments], said overcoat layer being omitted from an area where said first electrode is connected to said driver IC [also shown in 856]. 856 teaches using a this for protection as suggest by the name of the layer [protective coating 124]. Furthermore, 930 teaches using a resin protective coat 32 which also protects the electrodes 11. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was

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made to combine the protective coating of 856 with 930 to provide protection of the electrodes 11.

Regarding the insulator, the overcoat 32 of 930 would be the insulating layer.

Per claim 4, electrodes 11 are also formed when the pad electrodes in the area of the LSI.

Per claim 5, the electrodes 22 are also shown as electrodes 11, see figures and not protective coating is form at the connecting region.

Per claim 6-9, 930 lacks the anisotropic conductive film and the overlaying the conductive film with the overcoat. However, it was well known to use anisotropic conductive film to connect external circuitry in order to ensure a good electrical bond and a good bond of the TAB to the substrate to overlay the film on the overcoat. Accordingly, it would have been obvious to one of ordinary skill at the time the invention was made to combine the well known anisotropic conductive film with '856 to attach the necessary external circuitry in order to ensure a good electrical bond and to attach to the overcoat also to ensure a good bond.

Per claim 10, the process of connecting the external circuitry to the substrate includes melting the film to form the bond.

Per claim 11, this is product by process limitation and the resulting product is given weight.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 308-4782. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 703-305-3492. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7721 for regular communications and 703-308-7721 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



James A. Dudek
Primary Examiner
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April 7, 2003